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SUMMARIES

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ALIGNMENTS

RESULT 1

US-10-506-327-23

; Sequence 23, Application US/10506327

; GENERAL INFORMATION:

; APPLICANT: HIRAMATSU, Shingo

; APPLICANT: TANAKA, Takashi

; APPLICANT: YAMADA, Katsushige

; APPLICANT: TAMURA, Toshiki

; TITLE OF INVENTION: PRODUCTION OF PHYSIOLOGICALLY ACTIVE PROTEINS USING GENE RECOMB

; TITLE OF INVENTION: SILKWORMS

; FILE REFERENCE: 0210-0190PUS1

; CURRENT APPLICATION NUMBER: US/10/506,327

; CURRENT FILING DATE: 2004-09-02

; PRIOR APPLICATION NUMBER: PCT/JP03/02675

; PRIOR FILING DATE: 2003-03-06

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent-In 3.2

; SEQ ID NO 23

; LENGTH: 6070

; TYPE: DNA

; ORGANISM: Bombyx mori

US-10-506-327-23

Query Match 100.0%; Score 6070; DB 46; Length 6070;

Best Local Similarity 100.0%;

Matches 6070; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy	241	GACTAGGTAGGTACAAACAGCCTTTTTGATATTAGAAAACCTAAGTAAAATAGCCTACGGT	300
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Db	1861	 TGAGACCTTAGAACTTATATCTCAATGTGGGTGGCGCATTTTTTTACGGTAGGCAGCGGC	1920
Qy	1921	TTGGCTCTGCCCCTGGCATTGCTGAAGTCCATAGGCGACGGTTACCACTCACCATCAGGT	1980

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Qy	2521	TAAAAACAAAAATAAAAAATAGGGGGATGAAAAATAAATGTTGTTTCGATTCTCAACCTG	2580
Db	2521	TAAAAACAAAAATAAAAAATAGGGGGATGAAAAATAAATGTTGTTTCGATTCTCAACCTG	2580
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Db	2581	GCCGATATGCACGCTAAGATTCACAAAAATCGGTCGAGCCGTTTCGGAGGAGTTCAATCA	2640
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Qy	2701	TATTTAATTTTGTAAGTTGTCTTGATGATACATTTTTTCGTTTGTCATTCTTTCCTGCAG	2760
Db	2701	TATTTAATTTTGTAAGTTGTCTTGATGATACATTTTTTCGTTTGTCATTCTTTCCTGCAG	2760
Qy	2761	TTAGAACATAATATAAAATGCAAATGAAAAATAGAAATATAATAAATAATAATAAATAAA	2820
Db	2761	TTAGAACATAATATAAAATGCAAATGAAAAATAGAAATATAATAAATAATAATAAATAAA	2820
Qy	2821	TAATAAATATTTACTAACAATCACGCTACGTTAACTGGTCCCGTGATAAGTTCGTAAAGA	2880
Db	2821	TAATAAATATTTACTAACAATCACGCTACGTTAACTGGTCCCGTGATAAGTTCGTAAAGA	2880

Qy	2881	ACTTGTGTTACAGGTACCAGATAACGGATATAAATGTAAGATTTTTATTATACACATACA	2940
Db	2881	ACTTGTGTTACAGGTACCAGATAACGGATATAAATGTAAGATTTTTATTATACACATACA	2940
Qy	2941	TATATTTTCATATACATTTCATAACCCTGGAAAAATACATTTATATTTATCATACAAATATCT	3000
Db	2941	TATATTTTCATATACATTTCATAACCCTGGAAAAATACATTTATATTTATCATACAAATATCT	3000
Qy	3001	TCCCTTGGCGGGATTTCGAACCCGCGACCCCCTTGTGTAGTGACAATGTCACCTACCACTA	3060
Db	3001	TCCCTTGGCGGGATTTCGAACCCGCGACCCCCTTGTGTAGTGACAATGTCACCTACCACTA	3060
Qy	3061	CACCCTCTGGCATTGCTGGGCGACGGTAACCAACCCACCATTAGGTGGGCCATATGCTCGT	3120
Db	3061	CACCCTCTGGCATTGCTGGGCGACGGTAACCAACCCACCATTAGGTGGGCCATATGCTCGT	3120
Qy	3121	CTGCCTACAAGGGAAATAAAAAAATATCCTAATATAAATTGCATTAATTTTTTAAACC	3180
Db	3121	CTGCCTACAAGGGAAATAAAAAAATATCCTAATATAAATTGCATTAATTTTTTAAACC	3180
Qy	3181	GACTTTCAATCACAATGAAGACAGATTCTCGTCGAAGTTTGTTTTTGAACTATATCAAT	3240
Db	3181	GACTTTCAATCACAATGAAGACAGATTCTCGTCGAAGTTTGTTTTTGAACTATATCAAT	3240
Qy	3241	AACTTTTCATTATCCGTTCTTCGTCTTTTGTCTTTTTTTCGCAAACAAAACGAACAAAAC	3300
Db	3241	AACTTTTCATTATCCGTTCTTCGTCTTTTGTCTTTTTTTCGCAAACAAAACGAACAAAAC	3300
Qy	3301	GTTCTAATTCGAAAGATGTTTTGTACGAAAGTTTGAATAAGTGCTTAATTGCAAGTAAC	3360
Db	3301	GTTCTAATTCGAAAGATGTTTTGTACGAAAGTTTGAATAAGTGCTTAATTGCAAGTAAC	3360
Qy	3361	GTAACAATGTTTTAGGGTTCGGTCCTCAATAAATTTCGACCAATAAACCATACAAATTCTT	3420
Db	3361	GTAACAATGTTTTAGGGTTCGGTCCTCAATAAATTTCGACCAATAAACCATACAAATTCTT	3420
Qy	3421	TAACATTTTTTTAATCTTATACTAGCTGACCCGGCAGACTTCGTGGTGCCTCAATCGATA	3480
Db	3421	TAACATTTTTTTAATCTTATACTAGCTGACCCGGCAGACTTCGTGGTGCCTCAATCGATA	3480
Qy	3481	AATAAAATACCTATGCTTCTGTATAAAATAAACATAAAACAAACAAAAGGAATCCGTCCG	3540
Db	3481	AATAAAATACCTATGCTTCTGTATAAAATAAACATAAAACAAACAAAAGGAATCCGTCCG	3540
Qy	3541	ACGGGAGACACATCAAAGGAAAAACATCTTTTTTATTTTTTTACCTTTTAAACCTTCTCT	3600
Db	3541	ACGGGAGACACATCAAAGGAAAAACATCTTTTTTATTTTTTTACCTTTTAAACCTTCTCT	3600
Qy	3601	GGACTTCCACAAATAATTTAAGACCAAAATTAGCCAAATCGGTCTAGCATTTTCGAGTTT	3660
Db	3601	GGACTTCCACAAATAATTTAAGACCAAAATTAGCCAAATCGGTCTAGCATTTTCGAGTTT	3660
Qy	3661	TAGCGAGACTAACGAACAGCAATTCATTTTATATACACAGATTTATGTTACCGGGGTCT	3720
Db	3661	TAGCGAGACTAACGAACAGCAATTCATTTTATATACACAGATTTATGTTACCGGGGTCT	3720
Qy	3721	AGTGACCTAAACGACTTCAGCTCTAACACTAGGCTAACTCAGGCTTAGTAGCCTGGTCCT	3780
Db	3721	AGTGACCTAAACGACTTCAGCTCTAACACTAGGCTAACTCAGGCTTAGTAGCCTGGTCCT	3780

Qy	3781	AGTGTTAGATTTGAAGTCGTCTAATGCAAAGATTATTGGATCTGATGGATCCGTAAGGAC	3840
Db	3781	AGTGTTAGATTTGAAGTCGTCTAATGCAAAGATTATTGGATCTGATGGATCCGTAAGGAC	3840
Qy	3841	GTGTCTAGAGCGTCGACGGTGACTAGCTCCTGCGTGATCAGGAAAAATGTGGAAAGCTTA	3900
Db	3841	GTGTCTAGAGCGTCGACGGTGACTAGCTCCTGCGTGATCAGGAAAAATGTGGAAAGCTTA	3900
Qy	3901	ACGATTTTGTACATTTTACTTATCACAACTTGTTTTTATAATAATTCGCTTAAATGAGC	3960
Db	3901	ACGATTTTGTACATTTTACTTATCACAACTTGTTTTTATAATAATTCGCTTAAATGAGC	3960
Qy	3961	AGCTATTACTTAATCTCGTAGTGGTTTTTGACAAAATCAGCTTCTTTAGAACTAAAATAT	4020
Db	3961	AGCTATTACTTAATCTCGTAGTGGTTTTTGACAAAATCAGCTTCTTTAGAACTAAAATAT	4020
Qy	4021	CATTTTTTTTCGTAATTTTTTTAATGAAAAATGCTCTAGTGTTATACCTTTCCAAAATCAC	4080
Db	4021	CATTTTTTTTCGTAATTTTTTTAATGAAAAATGCTCTAGTGTTATACCTTTCCAAAATCAC	4080
Qy	4081	CATTAATTAGGTAGTGTTTAAGCTTGTTGTACAAAACGCCACACGCATTTTTTTCTCCA	4140
Db	4081	CATTAATTAGGTAGTGTTTAAGCTTGTTGTACAAAACGCCACACGCATTTTTTTCTCCA	4140
Qy	4141	CTGTAGGTTGTAGTTACGCGAAAACAAAATCGTTCTGTGAAAATTCAAACAAAATATTT	4200
Db	4141	CTGTAGGTTGTAGTTACGCGAAAACAAAATCGTTCTGTGAAAATTCAAACAAAATATTT	4200
Qy	4201	TTTCGTAAAAACACTTATCAATGAGTAAAGTAACAATTCATGAATAATTCATGTAAAAA	4260
Db	4201	TTTCGTAAAAACACTTATCAATGAGTAAAGTAACAATTCATGAATAATTCATGTAAAAA	4260
Qy	4261	AAAAATACTAGAAAAGGAATTTTTCATTACGAGATGCTTAAAAATCTGTTTCAAGGTAGA	4320
Db	4261	AAAAATACTAGAAAAGGAATTTTTCATTACGAGATGCTTAAAAATCTGTTTCAAGGTAGA	4320
Qy	4321	GATTTTTTCGATATTTTCGGAAAATTTTGTAAAACTGTAAATCCGTAAAATTTTGCTAAACA	4380
Db	4321	GATTTTTTCGATATTTTCGGAAAATTTTGTAAAACTGTAAATCCGTAAAATTTTGCTAAACA	4380
Qy	4381	TATATTGTGTTGTTTTGGTAAGTATTGACCCAAGCTATCACCTCCTGCAGTATGTCGTGC	4440
Db	4381	TATATTGTGTTGTTTTGGTAAGTATTGACCCAAGCTATCACCTCCTGCAGTATGTCGTGC	4440
Qy	4441	TAATTACTGGACACATTGTATAACAGTTCCACTGTATTGACAATAATAAAACCTCTTCAT	4500
Db	4441	TAATTACTGGACACATTGTATAACAGTTCCACTGTATTGACAATAATAAAACCTCTTCAT	4500
Qy	4501	TGACTTGAGAATGTCTGGACAGATTTGGCTTTGTATTTTGTATTTACAAATGTTTTTTTG	4560
Db	4501	TGACTTGAGAATGTCTGGACAGATTTGGCTTTGTATTTTGTATTTACAAATGTTTTTTTG	4560
Qy	4561	GTGATTTACCCATCCAAGGCATTCTCCAGGATGGTTGTGGCATCACGCCGATTGGCAAAC	4620
Db	4561	GTGATTTACCCATCCAAGGCATTCTCCAGGATGGTTGTGGCATCACGCCGATTGGCAAAC	4620
Qy	4621	AAAAACTAAATGAACTAAAAAGAAACAGTTTCCGCTGTCCCGTTCTCTAGTGGGAGA	4680
Db	4621	AAAAACTAAATGAACTAAAAAGAAACAGTTTCCGCTGTCCCGTTCTCTAGTGGGAGA	4680
Qy	4681	AAGCATGAAGTAAGTTCTTTAAATATTACAAAAAAATTGAACGATATTATAAAATTCCTT	4740

Db	4681	 AAGCATGAAGTAAGTTCTTTAAATATTACAAAAAAATTGAACGATATTATAAAATTCTTT	4740
Qy	4741	AAAAATATTAAAAGTAAGAACAATAAGATCAATTAAATCATAATTAATCACATTGTTTCATG	4800
Db	4741	 AAAAATATTAAAAGTAAGAACAATAAGATCAATTAAATCATAATTAATCACATTGTTTCATG	4800
Qy	4801	ATCACAAATTTAATTTACTTCATACGTTGTATTGTTATGTTAAATAAAAAGATTAAATTTCT	4860
Db	4801	 ATCACAAATTTAATTTACTTCATACGTTGTATTGTTATGTTAAATAAAAAGATTAAATTTCT	4860
Qy	4861	ATGTAATTGTATCTGTACAATAACAATGTGTAGATGTTTATTCTATCGAAAGTAAATACGT	4920
Db	4861	 ATGTAATTGTATCTGTACAATAACAATGTGTAGATGTTTATTCTATCGAAAGTAAATACGT	4920
Qy	4921	CAAAACTCGAAAATTTTCAGTATAAAAAGGTTCAACTTTTTCAAATCAGCATCAGTTCGG	4980
Db	4921	 CAAAACTCGAAAATTTTCAGTATAAAAAGGTTCAACTTTTTCAAATCAGCATCAGTTCGG	4980
Qy	4981	TTCCAACCTCTCAAGATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGA	5040
Db	4981	 TTCCAACCTCTCAAGATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGA	5040
Qy	5041	GTTAATTATTTTACTATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAA	5100
Db	5041	 GTTAATTATTTTACTATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAA	5100
Qy	5101	TAAGTGGTCGCCAAAACGCACAGATATCGTAAATTGTGCCATTTGATTTGTCACGCCCGG	5160
Db	5101	 TAAGTGGTCGCCAAAACGCACAGATATCGTAAATTGTGCCATTTGATTTGTCACGCCCGG	5160
Qy	5161	GGGGGCTACGGAATAAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACT	5220
Db	5161	 GGGGGCTACGGAATAAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACT	5220
Qy	5221	TGTGATTTATTTGCGTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTT	5280
Db	5221	 TGTGATTTATTTGCGTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTT	5280
Qy	5281	GCAATATCCTATTTACCGGTAAATCAGCATTGCAATATGCAATGCATATTCAACAATAT	5340
Db	5281	 GCAATATCCTATTTACCGGTAAATCAGCATTGCAATATGCAATGCATATTCAACAATAT	5340
Qy	5341	GTAAAACAATTTCGTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAA	5400
Db	5341	 GTAAAACAATTTCGTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAA	5400
Qy	5401	CCGCATTATTAATTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAAT	5460
Db	5401	 CCGCATTATTAATTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAAT	5460
Qy	5461	TATAATCATTTTTCATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTG	5520
Db	5461	 TATAATCATTTTTCATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTG	5520
Qy	5521	ATTATAACACGAGCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTGCGTTACC	5580
Db	5521	 ATTATAACACGAGCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTGCGTTACC	5580
Qy	5581	GATCACGTGATAGATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTT	5640

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Db      5581 GATCACGTGATAGATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTT 5640
Qy      5641 TCAGGTTGAGTCTGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCT 5700
        |||
Db      5641 TCAGGTTGAGTCTGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCT 5700
Qy      5701 AATAGGTAGGGAAAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCAT 5760
        |||
Db      5701 AATAGGTAGGGAAAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCAT 5760
Qy      5761 AAAATCTCGTGGTGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAG 5820
        |||
Db      5761 AAAATCTCGTGGTGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAG 5820
Qy      5821 AATGTTGTTCAACTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTA 5880
        |||
Db      5821 AATGTTGTTCAACTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTA 5880
Qy      5881 CTAAGGCAGTATGTCCTAACTCGTTCAGATCAGCGCTAACTTCGATTGAATGTGCGAAA 5940
        |||
Db      5881 CTAAGGCAGTATGTCCTAACTCGTTCAGATCAGCGCTAACTTCGATTGAATGTGCGAAA 5940
Qy      5941 TTTATAGCTCAATATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTT 6000
        |||
Db      5941 TTTATAGCTCAATATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTT 6000
Qy      6001 GTTTCAGTATGTCGCTTATACAAATGCAAACATCAATGATTTTGATGAGGACTATTTTGG 6060
        |||
Db      6001 GTTTCAGTATGTCGCTTATACAAATGCAAACATCAATGATTTTGATGAGGACTATTTTGG 6060
Qy      6061 GAGTGATGTC 6070
        |||
Db      6061 GAGTGATGTC 6070

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RESULT 2

US-10-506-327-22

; Sequence 22, Application US/10506327

; GENERAL INFORMATION:

; APPLICANT: HIRAMATSU, Shingo

; APPLICANT: TANAKA, Takashi

; APPLICANT: YAMADA, Katsushige

; APPLICANT: TAMURA, Toshiki

; TITLE OF INVENTION: PRODUCTION OF PHYSIOLOGICALLY ACTIVE PROTEINS USING GENE RECOMB

; TITLE OF INVENTION: SILKWORMS

; FILE REFERENCE: 0210-0190PUS1

; CURRENT APPLICATION NUMBER: US/10/506,327

; CURRENT FILING DATE: 2004-09-02

; PRIOR APPLICATION NUMBER: PCT/JP03/02675

; PRIOR FILING DATE: 2003-03-06

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent-In 3.2

; SEQ ID NO 22

; LENGTH: 1396

; TYPE: DNA

; ORGANISM: Bombyx mori

US-10-506-327-22

Query Match 23.0%; Score 1396; DB 46; Length 1396;

Best Local Similarity 100.0%;

Matches 1396; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	4675	GGGAGAAAGCATGAAGTAAGTTCTTTAAATATTACAAAAAAATTGAACGATATTATAAAA	4734
Db	1	GGGAGAAAGCATGAAGTAAGTTCTTTAAATATTACAAAAAAATTGAACGATATTATAAAA	60
Qy	4735	TTCTTTAAATATTAAAAGTAAGAACAATAAGATCAATTAAATCATAATTAATCACATTG	4794
Db	61	TTCTTTAAATATTAAAAGTAAGAACAATAAGATCAATTAAATCATAATTAATCACATTG	120
Qy	4795	TTCATGATCACAATTTAATTTACTTCATACGTTGTATTGTTATGTTAAATAAAAAGATTA	4854
Db	121	TTCATGATCACAATTTAATTTACTTCATACGTTGTATTGTTATGTTAAATAAAAAGATTA	180
Qy	4855	ATTTCTATGTAATTGTATCTGTACAATACAATGTGTAGATGTTTATTCTATCGAAAGTAA	4914
Db	181	ATTTCTATGTAATTGTATCTGTACAATACAATGTGTAGATGTTTATTCTATCGAAAGTAA	240
Qy	4915	ATACGTCAAACTCGAAAATTTTCAGTATAAAAAGGTTCAACTTTTTCAAATCAGCATCA	4974
Db	241	ATACGTCAAACTCGAAAATTTTCAGTATAAAAAGGTTCAACTTTTTCAAATCAGCATCA	300
Qy	4975	GTTTCGGTTCCAACCTCTCAAGATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGC	5034
Db	301	GTTTCGGTTCCAACCTCTCAAGATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGC	360
Qy	5035	AGGTGAGTTAATTATTTTACTATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACC	5094
Db	361	AGGTGAGTTAATTATTTTACTATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACC	420
Qy	5095	TGATAATAAGTGGTCGCCAAAACGCACAGATATCGTAAATTGTGCCATTTGATTTGTCAC	5154
Db	421	TGATAATAAGTGGTCGCCAAAACGCACAGATATCGTAAATTGTGCCATTTGATTTGTCAC	480
Qy	5155	GCCCGGGGGGCTACGGAATAAACTACATTTATTTATTTAAAAAATGAACCTTAGATTAT	5214
Db	481	GCCCGGGGGGCTACGGAATAAACTACATTTATTTATTTAAAAAATGAACCTTAGATTAT	540
Qy	5215	GTAACCTTGTGATTTATTTGCGTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGC	5274
Db	541	GTAACCTTGTGATTTATTTGCGTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGC	600
Qy	5275	AGACTTGCAATATCCTATTTACCGGTAAATCAGCATTGCAATATGCAATGCATATTCAA	5334
Db	601	AGACTTGCAATATCCTATTTACCGGTAAATCAGCATTGCAATATGCAATGCATATTCAA	660
Qy	5335	CAATATGTAAAACAATTCGTAAAGCATCATTAGAAAAATAGACGAAAGAAATTGCATAAAA	5394
Db	661	CAATATGTAAAACAATTCGTAAAGCATCATTAGAAAAATAGACGAAAGAAATTGCATAAAA	720
Qy	5395	TTATAACCGCATTATTAATTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTC	5454
Db	721	TTATAACCGCATTATTAATTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTC	780
Qy	5455	GCAAATTATAATCATTTTCATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGG	5514
Db	781	GCAAATTATAATCATTTTCATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGG	840
Qy	5515	TATGTGATTATAACACGAGCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGC	5574
Db	841	TATGTGATTATAACACGAGCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGC	900

Qy	5575	GTTACCGATCACGTGATAGATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAA	5634
Db	901	GTTACCGATCACGTGATAGATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAA	960
Qy	5635	ATTCTTTTCAGGTTGAGTCTGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTA	5694
Db	961	ATTCTTTTCAGGTTGAGTCTGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTA	1020
Qy	5695	CCAGCTAATAGGTAGGGAAAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGT	5754
Db	1021	CCAGCTAATAGGTAGGGAAAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGT	1080
Qy	5755	GACCATAAAATCTCGTGGTGTATGAGATACAATTATGTACTTTCCACAAATGTTTACAT	5814
Db	1081	GACCATAAAATCTCGTGGTGTATGAGATACAATTATGTACTTTCCACAAATGTTTACAT	1140
Qy	5815	AATTAGAATGTTGTTCAACTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTA	5874
Db	1141	AATTAGAATGTTGTTCAACTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTA	1200
Qy	5875	CCACTACTAAGGCAGTATGTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGT	5934
Db	1201	CCACTACTAAGGCAGTATGTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGT	1260
Qy	5935	GCGAAATTTATAGCTCAATATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAA	5994
Db	1261	GCGAAATTTATAGCTCAATATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAA	1320
Qy	5995	CATTTTGTTCAGTATGTCGCTTATACAAATGCAAACATCAATGATTTTGATGAGGACTA	6054
Db	1321	CATTTTGTTCAGTATGTCGCTTATACAAATGCAAACATCAATGATTTTGATGAGGACTA	1380
Qy	6055	TTTTGGGAGTGATGTC	6070
Db	1381	TTTTGGGAGTGATGTC	1396

RESULT 3

PCT-US09-32660-5

; Sequence 5, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 5

; LENGTH: 1051

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically Synthesized

PCT-US09-32660-5

Query Match 16.1%; Score 977.8; DB 4; Length 1051;
 Best Local Similarity 98.9%;

Matches 1037;		Conservative	0;	Mismatches	7;	Indels	5;	Gaps	5;
Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC							5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC							60
Qy	5055	TATTATTTT CAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA							5114
Db	61	TATTATTTT CAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA							120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTGTGATTGTGCACGCCCGGGGGGGCTACGGAAT							5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTGTGATTGTGCACGCCCTGGGGGGCTACGGAAT							180
Qy	5175	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC							5234
Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC							240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT							5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT							299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAAACAATTC							5352
Db	300	CACCGGTAAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAAACAATTC							359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA							5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA							419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT							5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT							479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA							5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA							538
Qy	5533	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA							5592
Db	539	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA							598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC							5652
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC							658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA							5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-							717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG							5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG							777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA							5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA							837
Qy	5833	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT							5892
Db	838	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT							897

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Qy      5893  GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
          |||
Db      898  GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957

Qy      5953  TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTCAGTATGT 6012
          |||
Db      958  TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTCAGTATGT 1017

Qy      6013  CGCTTATACAAATGCAAACATCAATGATT 6041
          |||
Db      1018 CGCTTATACAAATGCAAACATCAATGATT 1046

```

RESULT 4

US-12-363-326-5

; Sequence 5, Application US/12363326

; GENERAL INFORMATION

; APPLICANT: Brigham, David L.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: US/12/363,326

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 5

; LENGTH: 1051

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically Synthesized

US-12-363-326-5

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Query Match          16.1%; Score 977.8; DB 90; Length 1051;
Best Local Similarity 98.9%;
Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

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Qy      4995  ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 5054
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Db      1    1  ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 60

Qy      5055  TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 5114
          |||
Db      61    61  TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 120

Qy      5115  AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACACGCCCGGGGGGGCTACGGAAT 5174
          |||
Db      121   121  AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACACGCCCTGGGGGGCTACGGAAT 180

Qy      5175  AAACCTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 5234
          |||
Db      181   181  AAACCTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 240

Qy      5235  GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT 5294
          |||
Db      241   241  GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT 299

Qy      5295  CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC 5352

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Db	300		359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360		419
Qy	5413	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Qy	5473	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Db	480	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Qy	5533		538
Db	539	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5593	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539		598
Qy	5593	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC	5652
Qy	5653		658
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC	658
Qy	5713	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659		717
Qy	5713	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Qy	5773		777
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778		837
Qy	5833	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5893	CTTGCCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838		897
Qy	5893	CTTGCCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897
Db	898	GTCCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	5952
Qy	5953		957
Db	898	GTCCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	957
Qy	5953	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	6012
Db	958		1017
Qy	6013	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	1017
Db	1018	CGCTTATACAAATGCAAACATCAATGATT	6041
Qy	6013		6041
Db	1018	CGCTTATACAAATGCAAACATCAATGATT	1046

RESULT 5

PCT-US09-32660-30

; Sequence 30, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30
 ; PRIOR APPLICATION NUMBER: US 61/025,616
 ; PRIOR FILING DATE: 2008-02-01
 ; NUMBER OF SEQ ID NOS: 41
 ; SOFTWARE: PatentIn version 3.5
 ; SEQ ID NO 30
 ; LENGTH: 3029
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Chemically synthesized
 PCT-US09-32660-30

Query Match 16.1%; Score 977.8; DB 4; Length 3029;
 Best Local Similarity 98.9%;
 Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	60
Qy	5055	TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	5114
Db	61	TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCTGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAATGAACCTTAGATTATGTAACCTTGATTTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAATGAACCTTAGATTATGTAACCTTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAAACAATTC	5352
Db	300	CACCGGTAAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTGCGGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTGCGGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC	658

Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5833	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897
Qy	5893	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	5952
Db	898	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	957
Qy	5953	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	6012
Db	958	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	1017
Qy	6013	CGCTTATACAAATGCAAACATCAATGATT	6041
Db	1018	CGCTTATACAAATGCAAACATCAATGATT	1046

RESULT 6

US-12-363-326-30

; Sequence 30, Application US/12363326

; GENERAL INFORMATION

; APPLICANT: Brigham, David L.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: US/12/363,326

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 30

; LENGTH: 3029

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

US-12-363-326-30

Query Match 16.1%; Score 977.8; DB 90; Length 3029;

Best Local Similarity 98.9%;

Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	60
Qy	5055	TATTATTTTCAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	5114

Db	61	TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCTGGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTGTGATTTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTGTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC	5352
Db	300	CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5833	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897
Qy	5893	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	5952
Db	898	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	957
Qy	5953	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTCAGTATGT	6012
Db	958	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTCAGTATGT	1017

Qy 6013 CGCTTATACAAATGCAAACATCAATGATT 6041
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 Db 1018 CGCTTATACAAATGCAAACATCAATGATT 1046

RESULT 7

PCT-US09-32660-31

; Sequence 31, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 31

; LENGTH: 3749

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

PCT-US09-32660-31

Query Match 16.1%; Score 977.8; DB 4; Length 3749;

Best Local Similarity 98.9%;

Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy 4995 ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 5054
 |||
 Db 1 ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 60

Qy 5055 TATTATTTTCTGAGAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 5114
 |||
 Db 61 TATTATTTTCTGAGAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 120

Qy 5115 AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT 5174
 |||
 Db 121 AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT 180

Qy 5175 AAACCTACATTTATTTATTTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 5234
 |||
 Db 181 AAACCTACATTTATTTATTTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 240

Qy 5235 GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT 5294
 |||
 Db 241 GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT 299

Qy 5295 CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC 5352
 |||
 Db 300 CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC 359

Qy 5353 GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA 5412
 |||
 Db 360 GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA 419

Qy 5413 TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT 5472

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|||||
Db      420 TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTCGCAAATTATAATCATTTT 479
Qy      5473 CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA 5532
|||||
Db      480 CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA 538
Qy      5533 GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA 5592
|||||
Db      539 GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA 598
Qy      5593 GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC 5652
|||||
Db      599 GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC 658
Qy      5653 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA 5712
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Db      659 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG- 717
Qy      5713 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 5772
|||||
Db      718 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 777
Qy      5773 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 5832
|||||
Db      778 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 837
Qy      5833 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 5892
|||||
Db      838 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 897
Qy      5893 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
|||||
Db      898 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957
Qy      5953 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 6012
|||||
Db      958 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 1017
Qy      6013 CGCTTATACAAATGCAAACATCAATGATT 6041
|||||
Db      1018 CGCTTATACAAATGCAAACATCAATGATT 1046

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RESULT 8

US-12-363-326-31

; Sequence 31, Application US/12363326

; GENERAL INFORMATION

; APPLICANT: Brigham, David L.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: US/12/363,326

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 31

; LENGTH: 3749

; TYPE: DNA

; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Chemically synthesized
 US-12-363-326-31

Query Match 16.1%; Score 977.8; DB 90; Length 3749;
 Best Local Similarity 98.9%;
 Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	60
Qy	5055	TATTATTTT CAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	5114
Db	61	TATTATTTT CAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC	5352
Db	300	CACCGGTAAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCCTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCCTTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777

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Qy      5773 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 5832
          |||
Db      778 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 837

Qy      5833 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 5892
          |||
Db      838 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 897

Qy      5893 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
          |||
Db      898 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957

Qy      5953 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 6012
          |||
Db      958 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 1017

Qy      6013 CGCTTATACAAATGCAAACATCAATGATT 6041
          |||
Db      1018 CGCTTATACAAATGCAAACATCAATGATT 1046

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RESULT 9

PCT-US09-32660-32

; Sequence 32, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 32

; LENGTH: 3971

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

PCT-US09-32660-32

Query Match 16.1%; Score 977.8; DB 4; Length 3971;

Best Local Similarity 98.9%;

Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

```

Qy      4995 ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 5054
          |||
Db      1 ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 60

Qy      5055 TATTATTTTACAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 5114
          |||
Db      61 TATTATTTTACAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 120

Qy      5115 AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT 5174
          |||
Db      121 AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT 180

Qy      5175 AAACCTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 5234
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Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTGTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC	5352
Db	300	CACCGGTAAAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5833	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897
Qy	5893	GTCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	5952
Db	898	GTCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	957
Qy	5953	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	6012
Db	958	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	1017
Qy	6013	CGCTTATACAAATGCAAACATCAATGATT	6041
Db	1018	CGCTTATACAAATGCAAACATCAATGATT	1046

RESULT 10

US-12-363-326-32


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; Sequence 32, Application US/12363326
; GENERAL INFORMATION
; APPLICANT: Brigham, David L.
; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant
; TITLE OF INVENTION: Spider Silk Polypeptides
; FILE REFERENCE: 58835-370587
; CURRENT APPLICATION NUMBER: US/12/363,326
; CURRENT FILING DATE: 2009-01-30
; PRIOR APPLICATION NUMBER: US 61/025,616
; PRIOR FILING DATE: 2008-02-01
; NUMBER OF SEQ ID NOS: 41
; SOFTWARE: PatentIn version 3.5
; SEQ ID NO 32
; LENGTH: 3971
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Chemically synthesized
US-12-363-326-32

```

```

Query Match          16.1%; Score 977.8; DB 90; Length 3971;
Best Local Similarity 98.9%;
Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

```

Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	60
Qy	5055	TATTATTTTACAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	5114
Db	61	TATTATTTTACAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTGTGTCACGCCCGGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTGTGTCACGCCCTGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGATTTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC	5352
Db	300	CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCCTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592

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|||||
Db      539 GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA 598
Qy      5593 GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTTTTCAGGTTGAGTC 5652
|||||
Db      599 GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCTTTTCAGGTTGAGTC 658
Qy      5653 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA 5712
|||||
Db      659 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG- 717
Qy      5713 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 5772
|||||
Db      718 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 777
Qy      5773 TGTATGAGATACAATTATGTACTTTCCACAAAATGTTTACATAATTAGAATGTTGTTCAA 5832
|||||
Db      778 TGTATGAGATACAATTATGTACTTTCCACAAAATGTTTACATAATTAGAATGTTGTTCAA 837
Qy      5833 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 5892
|||||
Db      838 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 897
Qy      5893 GTCCTAACTCGTTCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
|||||
Db      898 GTCCTAACTCGTTCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957
Qy      5953 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 6012
|||||
Db      958 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 1017
Qy      6013 CGCTTATACAAATGCAAACATCAATGATT 6041
|||||
Db      1018 CGCTTATACAAATGCAAACATCAATGATT 1046

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RESULT 11

PCT-US09-32660-33

; Sequence 33, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 33

; LENGTH: 4691

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

PCT-US09-32660-33

Query Match 16.1%; Score 977.8; DB 4; Length 4691;

Best Local Similarity 98.9%;

Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	60
Qy	5055	TATTATTTTCAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	5114
Db	61	TATTATTTTCAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTGTACAGCCCGGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTGTACAGCCCTGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGATTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGATTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC	5352
Db	300	CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTGCGGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTGCGGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCCTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCCTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5833	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897

```

Qy      5893  GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
          |||
Db      898  GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957

Qy      5953  TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTCAGTATGT 6012
          |||
Db      958  TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTCAGTATGT 1017

Qy      6013  CGCTTATACAAATGCAAACATCAATGATT 6041
          |||
Db      1018 CGCTTATACAAATGCAAACATCAATGATT 1046

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RESULT 12

US-12-363-326-33

; Sequence 33, Application US/12363326

; GENERAL INFORMATION

; APPLICANT: Brigham, David L.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: US/12/363,326

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 33

; LENGTH: 4691

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

US-12-363-326-33

```

Query Match          16.1%;  Score 977.8;  DB 90;  Length 4691;
Best Local Similarity 98.9%;
Matches 1037;  Conservative 0;  Mismatches 7;  Indels 5;  Gaps 5;

```

```

Qy      4995  ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 5054
          |||
Db      1    1  ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 60

Qy      5055  TATTATTTTACAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 5114
          |||
Db      61    61  TATTATTTTACAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 120

Qy      5115  AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACACGCCCGGGGGGGCTACGGAAT 5174
          |||
Db      121   121  AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACACGCCCTGGGGGGCTACGGAAT 180

Qy      5175  AAACCTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 5234
          |||
Db      181   181  AAACCTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 240

Qy      5235  GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT 5294
          |||
Db      241   241  GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT 299

Qy      5295  CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAAACAATTC 5352
          |||

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Db          300 CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC 359
Qy          5353 GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA 5412
          |||
Db          360 GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA 419
Qy          5413 TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT 5472
          |||
Db          420 TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT 479
Qy          5473 CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA 5532
          |||
Db          480 CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA 538
Qy          5533 GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA 5592
          |||
Db          539 GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA 598
Qy          5593 GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTTAGCAAATTCCTTCAGGTTGAGTC 5652
          |||
Db          599 GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTTAGTAAATTCCTTCAGGTTGAGTC 658
Qy          5653 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA 5712
          |||
Db          659 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG- 717
Qy          5713 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 5772
          |||
Db          718 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 777
Qy          5773 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 5832
          |||
Db          778 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 837
Qy          5833 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 5892
          |||
Db          838 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 897
Qy          5893 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
          |||
Db          898 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957
Qy          5953 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 6012
          |||
Db          958 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 1017
Qy          6013 CGCTTATACAAATGCAAACATCAATGATT 6041
          |||
Db          1018 CGCTTATACAAATGCAAACATCAATGATT 1046

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RESULT 13

PCT-US09-32660-34

; Sequence 34, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616
 ; PRIOR FILING DATE: 2008-02-01
 ; NUMBER OF SEQ ID NOS: 41
 ; SOFTWARE: PatentIn version 3.5
 ; SEQ ID NO 34
 ; LENGTH: 4913
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Chemically synthesized
 PCT-US09-32660-34

Query Match 16.1%; Score 977.8; DB 4; Length 4913;
 Best Local Similarity 98.9%;
 Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy	4995	ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	5054
Db	1	ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC	60
Qy	5055	TATTATTTTCAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	5114
Db	61	TATTATTTTCAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA	120
Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAATGAACCTTAGATTATGTAACCTTGATTTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAATGAACCTTAGATTATGTAACCTTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC	5352
Db	300	CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTAGCAAATTCTTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTAGTAAATTCTTTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712

```

      |||
Db      659 TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG- 717
Qy      5713 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 5772
      |||
Db      718 AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG 777
Qy      5773 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 5832
      |||
Db      778 TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA 837
Qy      5833 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 5892
      |||
Db      838 CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT 897
Qy      5893 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 5952
      |||
Db      898 GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA 957
Qy      5953 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 6012
      |||
Db      958 TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT 1017
Qy      6013 CGCTTATACAAATGCAAACATCAATGATT 6041
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Db      1018 CGCTTATACAAATGCAAACATCAATGATT 1046

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RESULT 14

US-12-363-326-34

; Sequence 34, Application US/12363326

; GENERAL INFORMATION

; APPLICANT: Brigham, David L.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: US/12/363,326

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 34

; LENGTH: 4913

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

US-12-363-326-34

Query Match 16.1%; Score 977.8; DB 90; Length 4913;

Best Local Similarity 98.9%;

Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

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Qy      4995 ATGAGAGTCAAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 5054
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Db      1 ATGAGAGTCAAAACCTTTGTGATCTTGGTCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 60
Qy      5055 TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 5114
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Db      61 TATTATTTTCAGAAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 120

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Qy	5115	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGGCTACGGAAT	5174
Db	121	AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCTGGGGGGGCTACGGAAT	180
Qy	5175	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTGTGATTTATTTGC	5234
Db	181	AAACTACATTTATTTATTTAAAAAATGAACCTTAGATTATGTAACCTGTGATTTATTTGC	240
Qy	5235	GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT	5294
Db	241	GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT	299
Qy	5295	CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAAACAATTC	5352
Db	300	CACCGGTAAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAAACAATTC	359
Qy	5353	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	5412
Db	360	GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA	419
Qy	5413	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	5472
Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGCAAATTCTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTTAGGGCTAGTGTTAGTAAATTCTTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5833	CTTGCCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838	CTTGCCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897
Qy	5893	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	5952
Db	898	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	957
Qy	5953	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	6012
Db	958	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	1017

Qy 6013 CGCTTATACAAATGCAAACATCAATGATT 6041
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 Db 1018 CGCTTATACAAATGCAAACATCAATGATT 1046

RESULT 15

PCT-US09-32660-35

; Sequence 35, Application PC/TUS0932660

; GENERAL INFORMATION

; APPLICANT: ENTOGENETICS, INC. ET AL.

; TITLE OF INVENTION: Methods, Compositions and Systems for Production of Recombinant

; TITLE OF INVENTION: Spider Silk Polypeptides

; FILE REFERENCE: 58835-370587

; CURRENT APPLICATION NUMBER: PCT/US09/32660

; CURRENT FILING DATE: 2009-01-30

; PRIOR APPLICATION NUMBER: US 61/025,616

; PRIOR FILING DATE: 2008-02-01

; NUMBER OF SEQ ID NOS: 41

; SOFTWARE: PatentIn version 3.5

; SEQ ID NO 35

; LENGTH: 5633

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Chemically synthesized

PCT-US09-32660-35

Query Match 16.1%; Score 977.8; DB 4; Length 5633;

Best Local Similarity 98.9%;

Matches 1037; Conservative 0; Mismatches 7; Indels 5; Gaps 5;

Qy 4995 ATGAGAGTCAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 5054
 |||
 Db 1 ATGAGAGTCAAACCTTTGTGATCTTGTGCTGCGCTCTGCAGGTGAGTTAATTATTTTAC 60

Qy 5055 TATTATTTTCTGAGAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 5114
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 Db 61 TATTATTTTCTGAGAGGTGGCCAGACGATATCACGGGCCACCTGATAATAAGTGGTCGCCAA 120

Qy 5115 AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCGGGGGGGCTACGGAAT 5174
 |||
 Db 121 AACGCACAGATATCGTAAATTGTGCCATTTGATTTGTACGCCCCTGGGGGGGCTACGGAAT 180

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 Db 181 AAACCTACATTTATTTATTTTAAAAAATGAACCTTAGATTATGTAACCTTGTGATTTATTTGC 240

Qy 5235 GTCAAAAGTAGGCAAGATGAATCTATGTAAATACCTGGGCAGACTTGCAATATCCTATTT 5294
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 Db 241 GTCAAAAGTAGGCAAGATGAATCTATGTAAATA-CTGGGCAGACTTGCAATATCCTATTT 299

Qy 5295 CACCGGT-AAATCAGCATTGCAATATGCAATGC-ATATTCAACAATATGTAAACAATTC 5352
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 Db 300 CACCGGTAAATCAGCATTGCAATATGCAATGCTAAATTCAACAATATGTAAACAATTC 359

Qy 5353 GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA 5412
 |||
 Db 360 GTAAAGCATCATTAGAAAATAGACGAAAGAAATTGCATAAAATTATAACCGCATTATTAA 419

Qy 5413 TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT 5472
 |||

Db	420	TTTATTATGATATCTATTAACAATTGCTATTGCCTTTTTTTTCGCAAATTATAATCATTTT	479
Qy	5473	CATAACCTCGAGGTAGCATTCTGTTACATTTTAATACATTGGTATGTGATTATAACACGA	5532
Db	480	CATAACCTCGAGGTAGCATTCTG-TACATTTTAATACATTGGTATGTGATTATAACACGA	538
Qy	5533	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	5592
Db	539	GCTGCCCCACTGAGTTTCTCGCCAGATCTTCTCAGTGGGTCGCGTTACCGATCACGTGATA	598
Qy	5593	GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTAGCAAATTCTTTCAGGTTGAGTC	5652
Db	599	GATTCTATGAAGCACTGCTCTTGTAGGGCTAGTGTAGTAAATTCTTTCAGGTTGAGTC	658
Qy	5653	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTAATAGGTAGGGA	5712
Db	659	TGAGAGCTCACCTACCCATCGGAGCGTAGCTGGAATAGGCTACCAGCTGGTAGGTAGGG-	717
Qy	5713	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	5772
Db	718	AAACAAAGCTCGAAACAAGCTCAAGTAATAACAACATAATGTGACCATAAAATCTCGTGG	777
Qy	5773	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	5832
Db	778	TGTATGAGATACAATTATGTACTTTCCACAAATGTTTACATAATTAGAATGTTGTTCAA	837
Qy	5833	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	5892
Db	838	CTTGCCTAACGCCCCAGCTAGAACATTCAATTATTACTATTACCACTACTAAGGCAGTAT	897
Qy	5893	GTCCTAACTCGTTCCAGATCAGCGCTAACTTCGATTGAATGTGCGAAATTTATAGCTCAA	5952
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Qy	5953	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	6012
Db	958	TATTTTAGCACTTATCGTATTGATTTAAGAAAAAATTGTTAACATTTTGTTTCAGTATGT	1017
Qy	6013	CGCTTATACAAATGCAAACATCAATGATT	6041
Db	1018	CGCTTATACAAATGCAAACATCAATGATT	1046

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SCORE 3.6